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10/599,549	07/03/2007	Masao Ogawa	076376.0509	1590

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EXAMINER	
WITKOWSKI, ALEXANDER C	
ART UNIT	PAPER NUMBER
2853	

NOTIFICATION DATE	DELIVERY MODE
02/19/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/599,549	OGAWA ET AL.	
	Examiner	Art Unit	
	Alexander C. Witkowski	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 August 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 September 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *09/29/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 - 5 and 7 - 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyake et al. (US 6,398,358).

Regarding claim 1, Miyake teaches a printer with embroidering function (Abstract: disclosing ink-jet printer forming images on cloth {embroidery}) including a sewing machine body capable of sewing a workpiece cloth (col.33, lines 4-10: disclosing a final process such as sewing), a cloth holding frame holding the workpiece cloth to be sewn (col.8, lines 54-67: disclosing frames [cloth holding frame] 1051, 1052 of cloth conveying unit [cloth holding frame] 43), a frame drive unit having the cloth holding frame connected (col.8, lines 54-67: disclosing cloth conveying unit [frame drive unit and cloth holding frame] 43) therewith to move the cloth holding frame independently in two perpendicular directions on a horizontal plane (Fig.5: showing cloth conveying unit [cloth holding frame] moving in two perpendicular directions on a horizontal frame; see also Fig.8: selector 261), the printer with embroidering function having an ink-jet printer capable of printing the workpiece cloth of the cloth holding

frame moved by the frame drive unit (The Examiner concludes that Miyake figure 5 may be oriented either horizontally or vertically) comprising:

a purging mechanism capable of purging a print head of the printing unit (col.8, lines 36-49: disclosing head recovery device [purging mechanism] 13 that withdraws ink discharged through nozzles [purging mechanism] of the ink jet head [printing unit] 9);

a carrier mechanism characterized by being capable of switching the purging mechanism or the print head between a purging position capable of purging the print head and a printable position spaced from the purging position and capable of printing by relatively moving the purging mechanism or the print head in a horizontal direction (Fig.4: showing movement of frames [carrier mechanism] 1051, 1052 to facilitate maintenance of ink jet head [switching of purging mechanism] 9 to cap position outside frame 1051 of cloth conveying unit [relatively moving] 43; see also col.8, lines 36-49).

Regarding claim 2, Miyake teaches the printer with embroidering function according to claim 1, characterized in that the carrier mechanism carries the purging mechanism in the horizontal direction (Fig.5; see also col.8, lines 36-49).

Regarding claim 3, Miyake teaches the printer with embroidering function according to claim 1, characterized in that the carrier mechanism carries the print head in the horizontal direction (Fig.5; see also col.8, lines 36-49).

Regarding claim 4, Miyake teaches the printer with embroidering function according to claims 1 or 2 or 3, characterized in that upon print operation, the purging mechanism and the print head are isolated from the workpiece cloth of the cloth holding frame connected to the frame drive unit (Figs.3, 4: showing head recovery device 13 that withdraws ink discharged from nozzles [purging mechanism] is outside [isolated from] cloth conveying unit [cloth holding frame] 43; see also col.8, lines 36-67).

Regarding claim 5, Miyake teaches the printer with embroidering function according to claim 4, characterized in that the purging mechanism and the print head being isolated from the workpiece cloth of the cloth holding frame are disposed outside a printable range of the workpiece cloth (Figs.3, 4: showing head recovery device [head recovery mechanism] 13 outside printable range of workpiece cloth; see also col.8, lines 36-67).

Regarding claim 7, Miyake teaches the printer with embroidering function according to claims 1 or 2 or 3 or 4 or 5 or 6, characterized in further comprising an ink receptacle capable of receiving flushed ink (Figs.3, 4: showing head recovery device 13 that withdraws ink discharged from nozzles [capable of receiving flushed ink]; see also col.8, lines 36-67),

wherein the carrier mechanism is capable of switching the purging mechanism or the print head to a flushing position allowing reception of flushed ink by the ink receptacle (Figs.3, 4: showing head recovery device 13 that withdraws ink discharged

from nozzles [purging mechanism / flushing mechanism]; see also col.8, lines 36-67).

Regarding claim 8, Miyake teaches the printer with embroidering function according to claims 1 or 2 or 3 or 4 or 5 or 6 or 7, characterized in further comprising a head position switch mechanism that switches the print head between a printing position in close proximity of the workpiece cloth of the cloth holding frame connected to the frame drive unit and a nonprinting position upwardly spaced from the printing position (Figs.3, 4: showing guide rails [head position switch mechanism] 7, 8 that guide ink jet head [print head] 9, head carriage 10, and ink carriage vertically movable and a driving device {not shown} [electric motor]; see also col.8, lines 22-35: disclosing driving device [motor]).

Regarding claim 9, Miyake teaches the printer with embroidering function according to claim 8, characterized in that the head position switch mechanism comprises head guide portions that guide the print head vertically movably and an electric motor that vertically drives the print head (Figs.3, 4: showing guide rails [head position switch mechanism] 7, 8 that guide ink jet head [print head] 9, head carriage 10, and ink carriage vertically movable and a driving device {not shown} [electric motor]; see also col.8, lines 22-35: disclosing driving device [motor]).

Regarding claim 10, Miyake teaches the printer with embroidering function according to claim 8, characterized in that the head position switch mechanism

comprises a head pivot portion that rotates the print head about a horizontal shaft end an electric motor that rotates the print head (Figs.3, 4: showing guide rails [head position switch mechanism] 7, 8 that guide ink jet head [print head] 9, head carriage 10, and ink carriage vertically movable and a driving device {not shown} [electric motor]; see also col.8, lines 22-35: disclosing driving device [motor]).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 6, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyake et al. (US 6,398,358), as applied to claim 1 above, in view of Hirabayashi et al. (US 6,189,989).

Regarding claim 6, Miyake does not teach the printer with embroidering function according to claims 1 or 2 or 3 or 4 or 5, characterized in that the purging mechanism further comprises a nozzle wiper for the print head, wherein upon moving the purging mechanism or the print head from the purging position to the printable position, the print head is wiped by the nozzle wiper.

However, Hirabayashi teaches the printer with embroidering function according to claims 1 or 2 or 3 or 4 or 5, characterized in that the purging mechanism further

comprises a nozzle wiper for the print head, wherein upon moving the purging mechanism or the print head from the purging position to the printable position, the print head is wiped by the nozzle wiper (Fig.14: showing wiping member [nozzle wiper] 81 for ink jet head [print head] 4 that moves across wiper [head is wiped by nozzle wiper]).

It would have been obvious to one of ordinary skill in the art at the time that this invention was made to modify the invention of Miyake with that of Hirabayashi so as to provide printer head maintenance and recovery apart from the embroidery, thus avoiding any ink smearing onto the embroidery.

Regarding claim 11, the combination of Miyake and Hirabayashi references teaches the printer with embroidering function according to claims 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10, characterized in that the printing unit is fixed in a rear side of at least either of a sewing machine body head, an arm or a foot (Hirabayashi: Fig.8: showing ink jet printing unit 4 near sewing apparatus; see also col.7, lines 5-10)

Regarding claim 12, the combination of Miyake and Hirabayashi references teaches the printer with embroidering function according to claim 11 characterized in that the sewing machine body and the printing unit are aligned in the horizontal direction, wherein a movement amount of the cloth holding frame by the frame drive unit is set based on a distance between a sewing needle of the sewing machine body and print head of the printing unit to obtain a sewable and a printable area of a predetermined size within the cloth holding frame connected to the frame drive unit

(Hirabayashi: Fig.8: showing ink jet printing unit 4 near sewing apparatus; see also col.7, lines 5-10).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander C. Witkowski whose telephone number is (571) 270-3795. The examiner can normally be reached on Monday to Saturday, 8:00 AM to 6:30 PM EST, except on Tuesday to Thursday of alternate weeks.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alexander C. Witkowski/
Examiner, Art Unit 2853

/Stephen D. Meier/
Supervisory Patent Examiner, Art Unit